Learning and teaching in action

Abstract

In this article, Kolb’s cycle of learning is put forward as a useful theory to consult when planning information literacy or other teaching sessions. The learning cycle is contextualised and Kolb’s and other theories are briefly explored. The author then considers how learning style theories can be utilised when planning teaching and learning activities. The use of planning tools is advocated and ideas for sessions are suggested.

Keywords: education and training, information, information skills, literacy, teaching.

Know your RO from your AE? Learning styles in practice

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Background

Faced with the prospect of writing another teaching session, it can sometimes feel like being lost at sea without any scaffold to hang on to. Sometimes you might find someone else’s materials that you can rework, perhaps you can take advice and suggestions from colleagues, perhaps you have lots of ideas on content you want to get into your learner’s heads but not confident on how to ensure it gets there.

At this stage, it is easy, perhaps not to despair, but to feel a little lost with the amount of information and different starting points presenting themselves. One approach would be to consider different ways in which students learn. In this article, I want to visit Kolb’s Cycle of Learning and see how it might suggest the design of learning activities, giving us a framework to hang ideas off. I also want to advocate the use of planning tools such as lesson plans and reflections on practice. These often overlooked stages in preparing a session can be really useful in enabling an archive of session plans to be developed and shared with colleagues.

Experiential learning

Experiential learning is a theory of learning which originates in the work of Dewey, Lewin and Piaget (in Kolb, 1994, p20). It is based on the idea that only through experience does learning take place. Kolb developed these ideas to create a model of experiential learning which he proposed in his seminal 1984 text (see Fig.1).

Experiential learning contrasts most strongly with behaviourist theories of learning. Kolb describes behaviourist theories of learning as being based on the premise that there are ‘constant, fixed elements of thought’ (p26), and because of this, it is possible to measure how many ideas a learner has accumulated or how their behaviour has changed in response to certain stimuli. In contrast – from an experiential point of view – a student who can recite a list of facts would be seen as having learnt nothing as they would not have taken the material and made sense of it through their own experience.

As Kolb states, ‘Experiential learning theory, however proceeds from a different set of assumptions. Ideas are not fixed and immutable elements of thought but are formed and reformed through experience’ (p26). We have to be careful not to completely discount behavioural theories of learning, as they have something useful to offer us as information literacy practitioners. As Pritchard puts it, they can offer a ‘halfway house’ where the learner knows how to do something but does not
understand the underlying concepts, but this gives them the skills to tackle a more complex problem. For example, a student might not understand the concept of subject headings, but they know that by following a certain process they get better results on Medline than by using their previous approach. Having this behaviour in place, the tutor could then go on to tackle the concepts of classification and tagging.

Kolb’s cycle of learning

One of the most influential theories of learning is that of the cycle of experiential learning. It is used in the workplace as well as in education and provides a key to understanding how different people learn and how we can tailor our teaching to support the learning process and facilitate others in their learning journey. As a practitioner, it is important to find a theory of learning that resonates. We can then draw upon this when designing our teaching sessions. In essence, the cycle illustrates the process of learning. As a humanist, Kolb believed that we must create an environment conducive to learning for our students and that as tutors we can provide support to facilitate students reaching their goal.

Kolb presented a model of experiential learning as a cycle of learning. The four stages are described as four ‘learning modes’ and are named Concrete Experience, Reflective Observation, Abstract Conceptualisation and Active Experimentation. Put another way this is:

- Taking part in an experience, doing something
- Reflecting on the experience
- Drawing conclusions from the experience that may be applied successfully elsewhere
- Trying out our conclusions in practice – do they work?

Kolb splits the cycle into two continuums, ways of knowing and ways of understanding. Ways of knowing are named apprehension and comprehension. Apprehension can be characterised as knowing something by experiencing it (Concrete Experience), and comprehension is knowing about something in a theoretical manner (Abstract Conceptualisation). So, he creates a link between Concrete Experience and Abstract Conceptualisation. He also splits the cycle into two ways of understanding; intention and extension. Intention is

![Kolb's Learning Cycle](image-url)
making meaning by thinking and reflecting about the knowledge (Reflective Observation), and extension is making meaning by trying it out – by using it (Active Experimentation). This is the link between Reflective Observation and Active Experimentation.

Kolb felt that as we move around the learning cycle, we feel happier in some parts of the cycle than others and that the area that we felt happiest operating in was our preferred learning style – so an individual could have a learning style of CE, RO, AC or AE (see Fig. 2). He felt it was important to know where a person felt happiest on both of the continuums, for example, where they were in terms of experiencing – theorising (in terms of how they prefer to know about something) – and where they were in terms of reflection – experimentation (in terms of how they prefer to understand something).

If we look at the cycle again, we can see that by adding the two continuum lines the cycle is split into four. Within these four quadrants lie the four different learning styles devised by Kolb.

Kolb devised a learning styles inventory which is a questionnaire which invites people to choose from a list of words that describe their preferred way of learning. The four types of learning styles he named as – Diverging (CE/RO), Assimilating (AC/RO), Converging (AC/AE) and Accommodating (CE/AE). It must be stressed that everyone has all of the styles it is just that people generally feel happier in one of the areas.

That’s all very good – but how does it help us in practice?

If you consider the different aspects of Kolb’s cycle, you can utilise this to plan your activities. Different parts of the cycle lend themselves to different types of activity, for example:

Diverger or reflector style
Prefer discussions, group work, Q + A, sharing ideas.

Assimilator or theorist style
Prefer working with abstract concepts, analysing an existing theory or developing a new one using a logical step-by-step approach.

Converger/pragmatist style
Prefer problem solving, case studies, applying theory in practice, writing action plans and lists.

Accommodator/activist style
Prefer experimental activities, variety and like to throw themselves into an activity or experience.

It is also useful to consider whether people prefer to learn visually, by listening or by activity. It is always good to present information in a variety of formats, for example, using podcasts, film, pictures and diagrams as well as the useful but overused bullet-pointed list. Other theorists have developed Kolb’s ideas, for example, Honey and Mumford who suggest four specific learning styles: activist, reflector, theorist and pragmatist.

A word about planning

When we design learning and teaching activities, it is useful to ask ourselves some questions about the group of learners we are to meet. Webb and Powis describe this as ‘auditing’. We should consider as part of the planning process who our learners are, what level of knowledge they already have, and how we can ensure our session is inclusive and meets the needs of all our learners, promoting diversity and equality of opportunity. It is useful to create a session plan encompassing practical details, learning and teaching activities and a space to reflect on the session and consider ways in which it could be improved next time around.

When planning a session, it is useful to consider both the content and the delivery at the same time. If starting with the content from a teacher focus, it can be easy to fall into the trap of trying to cram in too much information into a short session. A way to try and avoid too much content (which can be difficult) is to prioritise what you want your learners to have learnt by the end of the session. Although tempting to circumvent or rush the planning stage, especially when time pressured to deliver materials, it is helpful to plan some simple learning outcomes for the session and then build up your learning and teaching activities – illustrating to yourself in your plan how they fulfil the learning outcomes you have created.
Looking at a basic session on literature searching, we could include aspects that cater to all the learning styles, for example:

In the first part of the session, ask students to reflect on their previous experiences of finding information both in a professional and non-professional context and consider what has proved successful or problematic in the past. Discuss in pairs and feedback their responses to the group (divergent/reflector).

Introduce a case study exercise where the students are given a brief to search the literature for a client and must produce a search strategy, select appropriate resources and justify their decisions (converger/pragmatist).

Provide different options during a ‘hands on’ section of a session, for example, allowing people to work on their own (divergent/reflector) or together, and provide crib sheets or suggestions on what and where to search allowing the learners to experiment (Accommodator/Activist). Also, offer a more prescriptive work sheet to follow which addresses different aspects of searching systematically (converger/pragmatist). It is also useful to flag up various online tutorials that can of course be part of a refresher or revision aid, or an extension activity after the session for those who want to know more.

Include a short lecture around the theoretical underpinning of literature searching – set the practical skills in context of how information is stored and retrieved (Assimilator/Theorist).

There are also more complex activities that can include all of the learning styles such as variations on the jigsaw activity where students have the opportunity to both work alone and collaboratively, they get to solve problems, test ideas and present to their peers. It is also useful to ask colleagues, consult mailing groups and information literacy forums for ideas on different types of activity. There are many useful titles with practical tips, for example, the ‘53 things’ series that provides a plethora of ideas to spark your imagination.

You cannot please all of the people all of the time

If you offer a varied number of activities during a workshop, there is potential for someone in the room to feel slightly less than comfortable at some point in the session. Another thing to consider is the culture of your group, as different national groups will have different views and expectations on how a teaching session should be structured. However, by ordering your activities appropriately (i.e. start with low risk activities and build up), any non-participation should be avoided.

In reflecting upon the issue (having experienced this kind of active learning both as a teacher and as a student), I know that sometimes the student can feel a little uncomfortable and challenged. There is also the possibility that the learners may be sceptical about why certain methods are being employed. If someone objects to participating in group work, it is often possible to overcome this by clearly explaining what is required of the participants and reassuring them that everything will be OK. The object is for people to be slightly challenged, bringing about a transformation to learning, not for them to feel totally humiliated!

But what about me?

As tutors, we will all have our own preferred learning styles and, therefore, methods of delivery which we feel most comfortable with. This of course also correlates with our level of experience as teaching practitioners and is subject to restrictions of what is culturally expected of us in our own institutions, departments or teams. It is easier to stick to what we know or prefer, that is, delivering a lecture or offering a worksheet, but by reflecting on our practice a little we can begin to recognise what our comfort zone is and decide to expand this a little by introducing something different in our sessions. A good way to start is by team teaching (or observing) a colleague’s session to gain insight from another practitioner. It is good to start small (just try doing one thing differently next time), but if you do not start it will not happen.

In conclusion, participation is self-evident to learning. By making time to consider our delivery in tandem with our content and by using the framework of the experiential learning cycle, we can seek to create interesting and effective teaching sessions.
 References


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